

WHAT IS CLAIMED IS:

1. An image formation system consisting of a color image formation apparatus and a black-and-white image formation apparatus, said system comprising:

a color image formation unit, adapted to form color images with said color image formation apparatus;

a black-and-white image formation unit, adapted to form black-and-white images with said black-and-white image formation apparatus;

a determining unit, adapted to determine whether each page in an input job, in which both a color page and a black-and-white page exist, is a color page or a black-and-white page;

a control unit, adapted to control said color image formation unit to form images for the color page, and controlling said black-and-white image formation unit to form images for the black-and-white page, based on the determination results from said determining unit; and

a selecting unit, adapted to select between

a first mode wherein, in the event that both a color page and a black-and-white page are to be formed on a single sheet, all pages to be formed on the sheet are formed with said color image formation unit, and

a second mode wherein, in the event that both a

color page and a black-and-white page are to be formed on a single sheet, the color page to be formed on the sheet is formed with said color image formation unit, and the black-and-white page to be formed on that sheet is formed with said black-and-white image formation unit.

2. An image formation system according to Claim 1, further comprising:

a merging path where sheets upon which images are to be formed by said color image formation unit or have been formed thereby, and sheets upon which images are to be formed by said black-and-white image formation unit or have been formed thereby, merge; and

a plurality of sheet feeding units, adapted to feed sheets, whereupon images having been formed beforehand by said color image formation unit, and sheets, whereupon images having been formed beforehand by said black-and-white image formation unit, are fed to said merging path by at least one of said plurality of sheet feeding units;

wherein said selecting unit selects one of said first mode and said second mode according to said at least one of said plurality of sheet feeding units is said sheet feeding unit used.

3. An image formation system according to Claim 2,

wherein said merging path is situated at a position where sheets, upon which images are to be formed by said color image formation unit, and sheets, upon which images are to be formed by said black-and-white image formation unit, merge following completion of image formation thereof,

and wherein, in the event of using at least one of said plurality of sheet feeding units for feeding sheets to said merging path, said selecting unit selects said first mode.

4. An image formation system according to Claim 2, wherein said merging path is situated at a position where one of the sheets, upon which images are to be formed by said color image formation unit, and sheets, upon which images are to be formed by said black-and-white image formation unit, merge before completion of image formation thereof;

and wherein, in the event of using at least one of said plurality of sheet feeding units for feeding sheets to said merging path, said selecting unit selects said second mode.

5. An image formation system according to Claim 1, wherein jobs containing both a color page and a black-and-white page are input from a computer connected to said image formation system.

6. An image formation system according to Claim 1, wherein jobs containing both a color page and a black-and-white page are input from a scanner connected to said image formation system.

7. An image formation system according to Claim 1, wherein said color image formation apparatus and said black-and-white image formation apparatus receive the same job.

8. An image formation system according to Claim 1, wherein a case where a color page and a black-and-white page are formed on the one sheet includes:

a case wherein one side of the sheet is a black-and-white page and the other side is a color page;

a case wherein both a color page and black-and-white page exist on a sheet for saddle stitching in book binding; and

a case wherein both a color page and black-and-white page exist in a reduced layout in which a plurality of pages are formed in a reduced manner on the one sheet.

9. A control method for an image formation system consisting of a color image formation apparatus and a black-and-white image formation apparatus, said method comprising:
forming color images with the color image formation

apparatus;

forming black-and-white images with the black-and-white image formation apparatus;

determining whether each page in an input job, in which both a color page and a black-and-white page exist, is a color page or a black-and-white page;

controlling said color image formation step to form images for the color page, and controlling said black-and-white image formation step to form images for the black-and-white page, based on the determination results in said determining step; and

selecting between

a first mode wherein, in the event that both a color page and black-and-white page are to be formed on a single sheet, all pages to be formed on that sheet are formed in said color image formation step, and

a second mode wherein, in the event that both a color page and a black-and-white page are to be formed on a single sheet, a color page to be formed on that sheet is formed in said color image formation step, and the black-and-white page to be formed on that sheet is formed in said black-and-white image formation step.

10. A color image formation apparatus, comprising:
a color image formation unit, adapted to form color

images on sheets;

a reception unit, adapted to receive image information;

and

a selecting unit adapted to select between

a first mode wherein, in the event that both a color page and a black-and-white page are to be formed on a single sheet, all pages to be formed on that sheet are formed with said color image formation unit, and

a second mode wherein, in the event that both a color page and a black-and-white page are to be formed on a single sheet, only a color page to be formed on that sheet is formed with said color image formation unit.

11. A color image formation apparatus according to Claim 10, wherein the sheets, upon which images are to be formed by a black-and-white image formation unit provided to a black-and-white image formation apparatus or have been formed thereby, and the sheets, upon which images are to be formed by a color image formation unit provided to a color image formation apparatus or have been formed thereby, merge at a merging path;

and wherein the sheets, whereupon images have been formed beforehand by said color image formation unit, or sheets, whereupon images have been formed beforehand by said black-and-white image formation unit, are fed to said

merging path by at least one of a plurality of sheet feeding units;

wherein said reception unit receives sheet feeding information indicating which sheet feeding unit is to be used;

and wherein said selecting unit selects one of a first mode and a second mode according to said sheet feeding unit information received by said reception unit.

12. A color image formation apparatus according to Claim 11, wherein said merging path is situated at a position where the sheets, upon which images are to be formed by said color image formation unit, and the sheets, upon which images are to be formed by said black-and-white image formation unit, merge following completion of image formation thereof;

and wherein, in the event of using at least one of said plurality of sheet feeding units for feeding sheets to said merging path, said selecting unit selects said first mode.

13. A color image formation apparatus according to Claim 12, wherein at least one of said plurality of sheet feeding units is an inserter or collator.

14. A color image formation apparatus according to

Claim 12, wherein at least one of said plurality of sheet feeding units is provided to said black-and-white image formation apparatus, for feeding the sheets upon which images have been formed by said color image formation unit, said apparatus further comprising:

a determining unit, adapted to determine whether a received page is a color page or a black-and-white page, based on information received from said reception unit.

15. A color image formation apparatus according to Claim 12, wherein at least one of said plurality of sheet feeding units is provided to said color image formation apparatus, for feeding sheets upon which images have been formed by said black-and-white image formation unit, and said reception unit receives information regarding whether a page is a color page or a black-and-white page, said apparatus further comprising:

a sheet loading unit, adapted to load sheets; and

a determining unit, adapted to determine whether a page is a color page or a black-and-white page, based on information received from said reception unit;

wherein, in the event that said determining unit judges that the sheet is the sheet upon which only black-and-white pages are to be formed, the sheet upon which said black-and-white images are formed is fed by at least one of said

plurality of sheet feeding units;

and in the event that said determining unit does not judge that the sheet is the sheet upon which only black-and-white pages are to be formed, the sheet is supplied from said sheet loading unit and images are formed thereupon by said color image formation unit.

16. A color image formation apparatus according to Claim 11, wherein said merging path is situated at a position where one of the sheets, upon which images are to be formed by said color image formation unit, and the sheets, upon which images are to be formed by said black-and-white image formation unit, merge before completion of image formation thereof;

and in the event of using at least one of said plurality of sheet feeding units for feeding sheets to said merging path, said selecting unit selects said second mode.

17. A color image formation apparatus according to Claim 16, wherein at least one of said plurality of sheet feeding units is a hand feed unit.

18. A color image formation apparatus according to Claim 16, wherein at least one of said plurality of sheet feeding units is provided to said black-and-white image

formation apparatus, for feeding sheets upon which images have been formed by said color image formation unit, said apparatus further comprising:

a determining unit, adapted to determine whether a received page is a color page or a black-and-white page, based on said image information received from said reception unit.

19. A color image formation apparatus according to Claim 16, wherein at least one of said plurality of sheet feeding units is provided to said color image formation apparatus, for feeding sheets upon which images have been formed by said black-and-white image formation unit, and said reception unit receives information regarding whether a page is a color page or a black-and-white page, said apparatus further comprising:

a sheet loading unit, adapted to load sheets; and

a determining unit, adapted to determine whether a sheet is a color page or a black-and-white page, based on information received by said reception unit;

wherein, in the event that said determining unit judges that the sheet is a sheet upon which only color pages are to be formed, the sheet is supplied from said loading unit and images are formed thereupon by said color image formation unit;

and wherein, in the event that said determining unit judges that the sheet is the sheet upon which only black-and-white pages are to be formed, the sheet upon which said black-and-white images are formed is fed by at least one of said plurality of sheet feeding units;

and wherein, and in the event that said determining unit judges that both a color page and a black-and white page exist on the sheet, the sheet is supplied from at least one of said plurality of sheet feeding units, following which the color page is formed by said color image formation unit.

20. A black-and-white image formation apparatus, comprising:

a black-and-white image formation unit, adapted to form a black-and-white image on a sheet;

a reception unit, adapted to receive image information; and

a selecting unit, adapted to select between

a first mode wherein, in the event that both a color page and black-and-white page are to be formed on a single sheet, no image formation is performed by said black-and-white image formation unit, and

a second mode wherein, in the event that both a color page and black-and-white page are to be formed on a

single sheet, only the black-and-white page to be formed on that sheet is formed with said black-and-white image formation unit.

21. A black-and-white image formation apparatus according to Claim 20, wherein the sheets, upon which images are to be formed by said black-and-white image formation unit or have been formed thereby, and the sheets, upon which images are to be formed by a color image formation unit provided to a color image formation apparatus or have been formed thereby, merge at a merging path;

and wherein the sheets, whereupon images have been formed beforehand by said color image formation unit, or the sheets, whereupon images have been formed beforehand by said black-and-white image formation unit, are fed to said merging path by at least one of said plurality of sheet feeding units;

wherein said reception unit receives sheet feeding unit information indicating which at least one of said plurality of sheet feeding units is to be used;

and wherein said selecting unit selects one of said first mode and said second mode according to said sheet feeding unit information received by said reception unit.

22. A black-and-white image formation apparatus

according to Claim 21, wherein said merging path is situated at a position where the sheets, upon which images are to be formed by said color image formation unit, and the sheets, upon which images are to be formed by said black-and-white image formation unit, merge following completion of image formation thereof;

and wherein, in the event of using at least one of said plurality of sheet feeding units for feeding sheets to said merging path, said selecting unit selects said first mode.

23. A black-and-white image formation apparatus according to Claim 22, wherein at least one of said plurality of sheet feeding units is an inserter or a collator.

24. A black-and-white image formation apparatus according to Claim 22, wherein at least one of said plurality of sheet feeding units is provided to said color image formation apparatus, for feeding sheets upon which images have been formed by said black-and-white image formation unit, said apparatus further comprising:

a determining unit, adapted to determine whether a received page is a color page or a black-and-white page, based on the information received from said reception unit.

25. A black-and-white image formation apparatus according to Claim 22, wherein at least one of said plurality of sheet feeding units is provided to said black-and-white image formation apparatus, for feeding sheets upon which images have been formed by said color image formation unit, and said reception unit receives information regarding whether a page is a color page or a black-and-white page, said apparatus comprising:

a sheet loading unit, adapted to load sheets; and

a determining unit, adapted to determine whether the sheet is a color page or a black-and-white page, based on information received by said reception unit;

wherein, in the event that said determining unit judges that the sheet is a sheet upon which only black-and-white pages are to be formed, the sheet is supplied from said loading unit and images are formed thereupon by said black-and-white image formation unit;

and in the event that said determining unit does not judge that the sheet is a sheet upon which only black-and-white pages are to be formed, the sheet upon which said color images are formed is fed by at least one of said plurality of sheet feeding units.

26. A black-and-white image formation apparatus according to Claim 21, wherein said merging path is situated

at a position where one of the sheets, upon which images are to be formed by said color image formation unit, and the sheets, upon which images are to be formed by said black-and-white image formation unit, merge before completion of image formation thereof;

and wherein, in the event of using at least one of said plurality of sheet feeding units for feeding sheets to said merging path, said selecting unit selects said second mode.

27. A black-and-white image formation apparatus according to Claim 26, wherein at least one of said plurality of sheet feeding units is a hand feed unit.

28. A black-and-white image formation apparatus according to Claim 26, wherein at least one of said plurality of sheet feeding units is provided to said color image formation apparatus, for feeding sheets upon which images have been formed by said black-and-white image formation unit, said apparatus further comprising:

a determining unit, adapted to determine whether a received page is a color page or a black-and-white page, based on said image information received from said reception unit.

29. A black-and-white image formation apparatus

according to Claim 26, wherein at least one of said plurality of sheet feeding units is provided to said black-and-white image formation apparatus, for feeding sheets upon which images have been formed by said color image formation unit, and said reception unit receives information regarding whether a page is a color page or a black-and-white page, said apparatus further comprising:

a sheet loading unit, adapted to load sheets; and

a determining unit, adapted to determine whether the page is a color page or a black-and-white page, based on information received by said reception unit;

wherein, in the event that said determining unit judges that the sheet is a sheet upon which only black-and-white pages are to be formed, the sheet is supplied from said sheet loading unit and images are formed thereupon by said black-and-white image formation unit;

wherein, in the event that said determining unit judges that the sheet is the sheet upon which only color pages are to be formed, the sheet upon which said color images are formed is fed by at least one of said plurality of sheet feeding units;

and wherein, and in the event that said determining unit judges that both a color page and a black-and white page exist on the sheet, the sheet is supplied from at least one of said plurality of sheet feeding units, following

which the black-and-white page is formed by said black-and-white image formation unit.

30. A program executed by an information processing apparatus connected to a color image formation apparatus and a black-and-white image formation apparatus, wherein said program causes said information processing apparatus to execute selection procedures for selecting one of:

a first mode wherein, in the event that both a color page and black-and-white page are to be formed on a single sheet, all pages to be formed on the sheet are formed with said color image formation unit; and

a second mode wherein, in the event that both a color page and black-and-white page are to be formed on a single sheet, the color page to be formed on that sheet is formed with said color image formation apparatus, and the black-and-white page to be formed on the sheet is formed with said black-and-white image formation apparatus.

31. An image formation system consisting of a color image formation apparatus and a black-and-white image formation apparatus, said system comprising:

a color image formation unit, adapted to form color images with said color image formation apparatus; and

a black-and-white image formation unit, adapted to form

black-and-white images with said black-and-white image formation apparatus;

wherein, in the event that a color page and a black-and-white page are to be formed on a sheet, all pages to be formed on the sheet are formed by said color image formation unit;

wherein, in the event that only color pages are to be formed on a single sheet, all pages to be formed on the sheet are formed by said color image formation unit;

and wherein, in the event that only black-and-white pages are to be formed on a single sheet, all pages to be formed on the sheet are formed by said black-and-white image formation unit.

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32. A color image formation apparatus comprising a color image formation unit for forming color images on sheets;

wherein, in the event that a color page and a black-and-white page are to be formed on a sheet, all pages to be formed on the sheet are formed by said color image formation unit;

wherein, in the event that only color pages are to be formed on a single sheet, all pages to be formed on the sheet are formed by said color image formation unit;

wherein, in the event that only black-and-white pages

are to be formed on a single sheet, no images are formed on the sheet by said color image formation unit.

33. A black-and-white image formation apparatus comprising a black-and-white image formation unit for forming black-and-white images on sheets;

wherein, in the event that a color page and a black-and-white page are to be formed on a sheet, no images are formed on the sheet by said black-and-white image formation unit;

wherein, in the event that only color pages are to be formed on a sheet, no images are formed on the sheet by said black-and-white image formation unit;

and wherein, in the event that only black-and-white pages are to be formed on a single sheet, all pages to be formed on the sheet are formed by said black-and-white image formation unit.